Table of Contents

Executive Summary Click Here To View **.. i**

Introduction...1

Background 1

Audit Scope, Objectives, And Methodology 6

Major Accomplishments Related To This Program 7

Finding I
The City Needs To Improve Its Controls Over Its Master Vendor File 9

The Master Vendor File 9

There Have Been As Many As 52 City And Redevelopment Agency Employees With Update And Delete Authorization Access To The City's Master Vendor File. This Is An Excessive Number When Compared To Other Organizations And Governmental Jurisdictions 11

Of These 52 City And Redevelopment Agency Employees, At Least 29 Are Performing Duties That Are Incompatible With Their Access To The City's Master Vendor File 18

The City Has Over 84,000 Vendors Or Individuals On Its Master Vendor File. This Is An Excessive Number When Compared To Other Organizations And Governmental Jurisdictions 19

The City Needs To Improve Its Controls To Ensure The Integrity And Reliability Of The Information In Its Master Vendor File 28

The City Has Not Implemented Previously Recommended Access Controls Over Its Master Vendor File 33

CONCLUSION..34

RECOMMENDATIONS 35

Administration's Response Click Here To View **.....................................37**

Appendix A Click Here To View
Definition Of Priority 1, 2, And 3 Audit Recommendations.................................... A-1

Appendix B Click Here To View
Memorandum Of Program Accomplishments..B-1

Appendix C Click Here To View
Master Vendor File Vendor Coding Structure C-1

Appendix D Click Here To View
FMS User's Access Set-Up Form.. D-1

Appendix E Click Here To View

Glossary E-1

Appendix F Click Here To View

Sources Consulted...F-1

Table Of Graphs And Exhibits

Exhibit 1
Summary Of Statistical Data Regarding Vendor Checks Processed From 1994-95 Through 1998-99 10

Exhibit 2
Schedule Of The Number Of Master Vendor File Users By City Department 13

Exhibit 3
Summary Of The Number Of Individuals Authorized To Make Changes To The Master Vendor File For San Jose And Other Selected Jurisdictions 14

Exhibit 4
Summary Of The Number Of Months Since The City Has Had A Transaction With The Vendors And Individuals In The City's Master Vendor File 20

Exhibit 5
Summary Of Responses To IOMA's Survey Question – "How Many Vendors Are In Your Vendor File?" 21

Exhibit 6
Summary Of Responses To IOMA's Survey Question – "What Is The Size Of Your Master Vendor File?" 22

Exhibit 7
City Auditor's Survey Showing The Number Of Vendors In The Master Vendor File For Various Governmental Jurisdictions 22

Exhibit 8
Stratification Of The Invoices Paid In The 70000 Through 79999 Series In The Master Vendor File July 1, 1998 Through October 31, 1999 24

Exhibit 9
Timing Of Master Vendor File Clean-Ups 25

Introduction

In accordance with the City Auditor's 1999-2000 Audit Workplan, we have audited the City of San Jose's Master Vendor File. This is the first in a series of audits of the City of San Jose's Accounts Payable. We conducted this audit in accordance with generally accepted government auditing standards and limited our work to those areas specified in the Scope and Methodology section of this report.

The City Auditor's Office thanks the Finance Department and the Information Technology Department for their time, information, insight, and cooperation during the audit process.

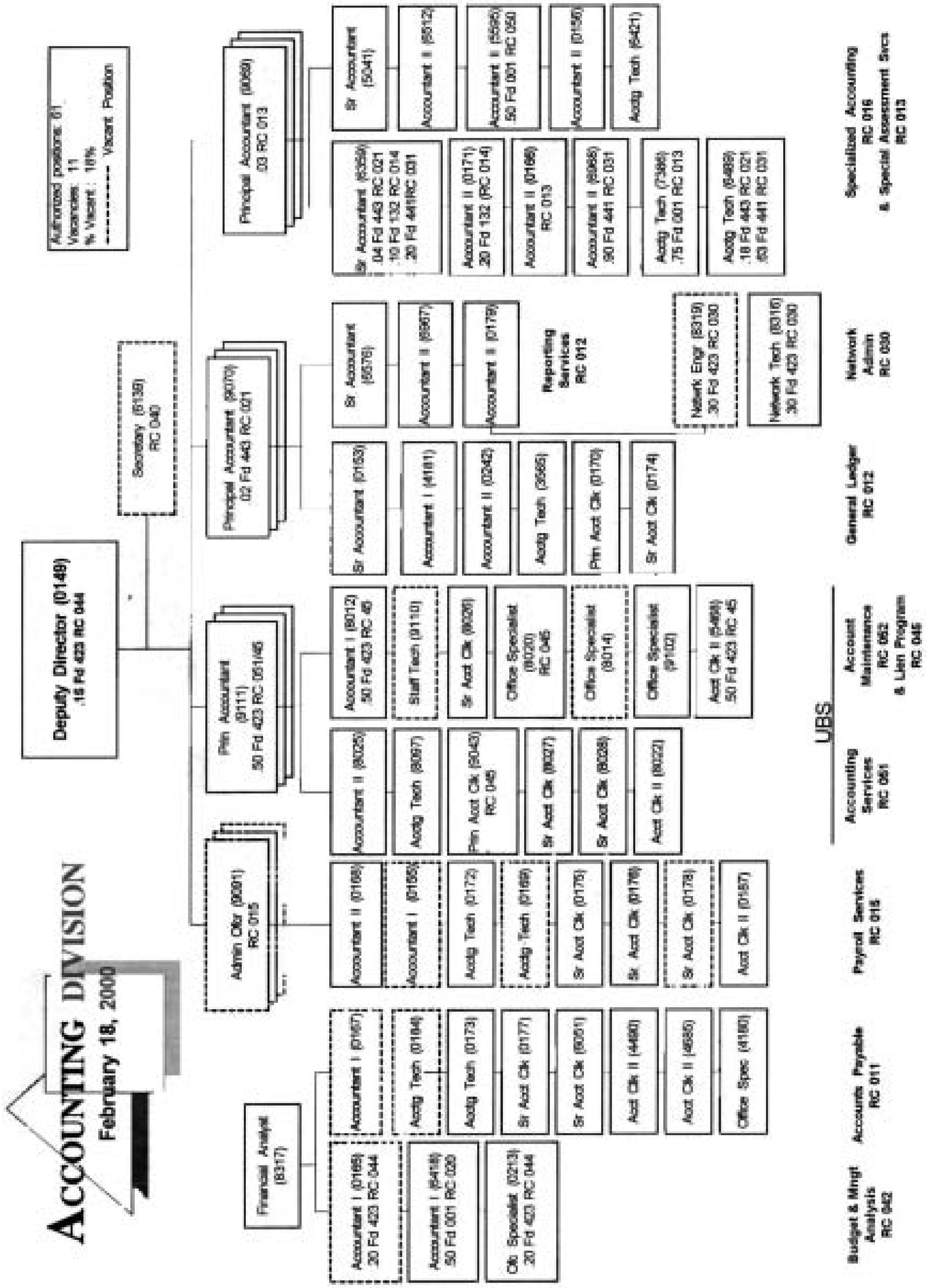
Background

In a computer, a master file and master file data show the most current, accurate, and authoritative permanent or semi-permanent record of information maintained over an extended period of time. A vendor master record is the central reference that an organization uses to determine how the accounts payable system manages a vendor's activity. The vendor master records are the source of the payee names and addresses that an organization prints onto vendor checks. Inaccurate, incomplete, or unauthorized master file records may have a pervasive negative effect on cash disbursement processing.

The mission statement of the City's Finance Department includes the following: "To maintain and operate critical financial systems for tax collection, payroll processing and payment of the City's debt ..."

The City's Information Technology Department (IT) is also involved in the processing of vendor payments to the extent that IT is responsible for managing the related technology resources. IT's mission statement is as follows: "To provide accurate and timely computer data and communications services to City staff. To assist in managing technology resources for the efficient and effective delivery of City services."

The Accounting Division's organization chart is shown on the next page.


ACCOUNTING DIVISION
February 18, 2000
Authorized positions: 61
Vacancies: 11
% Vacant: 18%
Vacant Position
Deputy Director (0149) .18 Fd 423 RC 044
Secretary (8136) RC 040
Financial Analyst (8317)
Accountant I (0166) .20 Fd 423 RC 044
Accountant I (6418) .50 Fd 001 RC 020
Ofc Specialist (0213) .20 Fd 423 RC 044
Accountant I (0167)
Acctg Tech (0184)
Acctg Tech (0173)
Sr Acct Clk (0177)
Sr Acct Clk (8051)
Acct Clk II (4480)
Acct Clk II (4685)
Office Spec (4180)
Admin Ofcr (8091) RC 015
Accountant II (0165)
Accountant I (0155)
Acctg Tech (0172)
Acctg Tech (0169)
Sr Acct Clk (0175)
Sr Acct Clk (0176)
Sr Acct Clk (0178)
Acct Clk II (0187)
Prin Accountant (8111) .50 Fd 423 RC 051/40
Accountant II (8025)
Acctg Tech (8097)
Prin Acct Clk (8043) RC 046
Sr Acct Clk (8027)
Sr Acct Clk (8028)
Acct Clk II (8022)
Accountant I (8012) .50 Fd 423 RC 45
Staff Tech (8110)
Sr Acct Clk (8026)
Office Specialist (8020) RC 046
Office Specialist (8014)
Office Specialist (8102)
Acct Clk II (5468) .50 Fd 423 RC 45
Principal Accountant (8070) .02 Fd 443 RC 021
Sr Accountant (0163)
Accountant I (4181)
Accountant II (0242)
Acctg Tech (3565)
Prin Acct Clk (0170)
Sr Acct Clk (0174)
Sr Accountant (8576)
Accountant II (8567)
Accountant II (0179)
Reporting Services RC 012
Network Engr (8319) .30 Fd 423 RC 030
Network Tech (8316) .30 Fd 423 RC 030
Principal Accountant (8068) .03 RC 013
Sr Accountant (8359) .04 Fd 443 RC 021 .10 Fd 132 RC 014 .30 Fd 441RC 031
Accountant II (0171) .20 Fd 132 (RC 014)
Accountant II (0168) RC 013
Accountant II (8068) .90 Fd 441 RC 031
Acctg Tech (7366) .75 Fd 001 RC 013
Acctg Tech (6489) .18 Fd 443 RC 021 .63 Fd 441 RC 031
Sr Accountant (5041)
Accountant II (6512)
Accountant II (5926) .50 Fd 001 RC 050
Accountant II (0156)
Acctg Tech (6421)
Budget & Mngt Analysis RC 042
Accounts Payable RC 011
Payroll Services RC 018
UBS
Accounting Services RC 081
Account Maintenance RC 082 & Lien Program RC 046
General Ledger RC 012
Network Admin RC 030
Specialized Accounting RC 016 & Special Assessment Svcs RC 013

A unit in the City's Accounting Division is responsible for processing vendor payments. This unit, with the exception of the master vendor file maintenance clerk, does the final review and approval of invoices that the various City departments and officers submit for payment. The City's accounts payable system is essentially a decentralized process. The City's decentralized accounts payable process increases the importance of standardization, disciplines, and written policies and procedures. Any organization that has a decentralized accounts payable process is exposed to an increased risk of unauthorized, duplicate and incorrect vendor master records creating the risk of improper or erroneous payments. If an organization does not monitor changes to vendor master records, an employee with access to these records could change the vendor name and/or address prior to a check being cut. That same employee could then change the vendor name and/or address back again after the check is cut. Similarly, an organization must promptly remove terminated employees' IDs from the list of employees with access to vendor master records. Failure to do so could enable terminated employees to change vendor names or addresses.

The City's Accounting Program has a performance measure to evaluate the percentage of disbursements and payroll documents processed accurately. The City's Accounting Program processed 462,799 and 440,000 disbursement and payroll documents during 1997-98 and 1998-99. The City's target for processing these documents accurately is 100 percent. According to the City's 1999-2000 Adopted Operating Budget, the City had no variances from this target for 1997-98 and 1998-99.

Accounts payable and cash disbursements for non-personal expenditures in a decentralized environment are not isolated systems but, rather, part of an interrelated network of systems. The City's payment of non-personal expenditures encompasses four primary areas of responsibility: (1) each department's or office's staff, (2) the Purchasing Division of General Services, (3) the Accounts Payable Section of the Department of Finance, and (4) IT. When we audited the Master Vendor File, we kept this subsystem in perspective to the total system. By so doing, we hope to mitigate the risks and exposures on the total City network of systems affecting the accounts payable and cash disbursements process.

A risk is defined as the probability that an unfavorable event such as a financial or other form of loss will occur. Exposure is the degree that an organization does not protect itself against risk. Generally, the more valuable an asset is to an organization, the greater the risk and resultant exposure. An organization mitigates exposure by using risk management techniques, such as implementing and maintaining effective controls.

Consequences are tangible outcomes of uncontrolled risks. Accordingly, an organization’s controls and internal control systems can affect the consequences to which the organization is exposed. Consequences can vary in severity depending on factors such as:

- The assets at risk (exposure);
- The type of threat;
- The duration of the consequence; and
- The effectiveness of the controls in place.

If the City does not establish and enforce adequate internal controls, the City and its systems become vulnerable and subject to risks such as fraud, misappropriation of assets, and errors.

The Congressional Subcommittee on Crime defined fraud as “an illegal act or series of illegal acts committed by nonphysical means and by concealment or guile, to obtain money or property, to avoid the payment of loss of money or property, or to obtain personal or business advantage.”

The American Institute of Certified Public Accountants states in its Statement on Auditing Standards (SAS) 82 that misappropriation of assets (sometimes referred to as defalcation) involves the theft of an entity’s assets. According to SAS 82, misappropriation can be accomplished in various ways, including embezzling receipts, stealing assets, or causing an entity to pay for goods or services not received. Misappropriation of assets may be accompanied by false or misleading records or documents and may involve one or more individuals among management, employees, or third parties.

An environment that is not adequately controlled is vulnerable to fraud and other illegal or unethical activities. Such activities can also damage the organization’s public image.

Control weaknesses subject the City to errors in processing and operations, which could cause misstated results and poor management decisions. There is also a cost involved in correcting and recovering from errors. All the objectives for a system of internal or operational accounting control for a particular business cycle are not just internal control objectives, they are common business sense objectives.

Deterrence of fraud is the responsibility of management. Managers are responsible for knowing exposures to wrongdoing and for establishing controls and procedures to deter and detect suspected wrongdoing. Internal auditors are responsible for examining and evaluating the adequacy and the effectiveness of actions taken by management to fulfill this obligation.

There are three major categories representing the forces that influence the decision to commit or not commit fraud. A combination of these forces (fraud triangle) produces a fraudulent act:

1. Situational pressures—immediate pressures individuals experience within their environment (high personal debt or financial losses; peer group influences).

2. Opportunities to commit fraud—either created by the individuals themselves or by the company (through careless internal control).

3. Personal integrity (character)—the personal code of ethics each person adopts.

It is the interaction of these three forces that leads to the decision to commit fraud.

A recent example of misappropriation of assets occurred in the East Bay Municipal Utility District.

In April 1999, the FBI arrested EBMUD’s water conservation manager on suspicion of embezzling and laundering public funds intended to reward people and businesses that install low-flow toilets. According to the FBI, the water conservation manager submitted false invoices for thousands of $50 to $100 rebates paid to a company called P.C. Properties claiming to have installed the toilets in apartments. The checks were sent over two years to a Danville post office box, where the manager is believed to have collected the money and then used it to buy a new house, according to federal authorities and EBMUD officials. EBMUD alerted the FBI in December when an internal audit unearthed evidence that EBMUD was paying P.C. Properties for toilets it didn't install. EBMUD's internal audit department determined that EBMUD issued 67 fraudulent rebate checks totaling $1,224,100 between January 6, 1995 and July 31, 1998 to P.C. Properties. According to the federal indictment, EBMUD's water conservation manager controlled P.C. Properties.

Audit Scope, Objectives, And Methodology

Our audit objectives were to determine:

- Whether the City has adequate controls and is demonstrating effective accountability over its Master Vendor File; and
- Whether there are methods for improving the integrity and reliability of the information in the Master Vendor File.

We retained an independent, computer-audit consultant to analyze the City's accounts payable computer files and records. The consultant analyzed the City's accounts payable computer files and records for the period of July 1, 1989 through October 31, 1999. The existence of computerized information systems and data stored on computer media has led to significant advancements in automated audit testing methods. These techniques include the use of retrieval and analysis programs. Retrieval and analysis programs are designed to organize, combine, compute, analyze, or extract data on computer files and to perform computations and other processing functions. Computer-assisted auditing techniques provide a new approach to audit tests. These techniques required the consultant to extract data from the City's information system. These computer-assisted audit tests replaced the tests that the City Auditor's Office would have previously performed manually. Such City Auditor manual testing would have been limited by the sheer volume of the data and the time required to perform the work.

In addition, our methodology included reviewing available written procedures, interviewing management and staff, making queries on the City's Financial Management System (FMS), and doing other audit tests we considered necessary under the circumstances. We performed only limited testing of the various computer reports and databases we used during our audit. We did not review the general and specific controls for the computer systems used in compiling the various computer reports and databases we used.

Major Accomplishments Related To This Program

In Appendix B, the Finance Department informs us of its program accomplishments regarding the Accounts Payable Unit.

Finding I The City Needs To Improve Its Controls Over Its Master Vendor File

The Finance Department and the Information Technology Department (IT) are responsible for maintaining and controlling the City's Master Vendor File. This Master Vendor File is the source of the payee names and addresses printed onto checks. When we reviewed the Master Vendor File we found that the City is exposed to fraud, misappropriation of assets, and errors because:

- There have been as many as 52 City and Redevelopment Agency employees with update and delete authorization access to the City's Master Vendor File. This is an excessive number when compared to other organizations and governmental jurisdictions;
- Of those 52 City and Redevelopment Agency employees, at least 29 were performing duties that are incompatible with their access to the City's Master Vendor File;
- The City has over 84,000 vendors or individuals in its Master Vendor file. This is an excessive number when compared to other organizations and governmental jurisdictions;
- The City needs to improve its controls to ensure the integrity and reliability of the information in its Master Vendor File; and
- The City has not implemented previously recommended access controls over its Master Vendor File.

The Finance Department and IT can improve the controls over the Master Vendor File by developing policies and procedures for authorizing access to the Master Vendor File, requiring the completion of mandatory information in the Master Vendor File, purging inactive vendor accounts, and reviewing all additions, deletions, and changes to the Master Vendor File.

The Master Vendor File

A vendor master record is the central reference that is used to determine how the accounts payable system manages a vendor's activity. The City's Finance Department provided us with the following statistical information about the City's accounts payable workload for 1994-95 through 1998-99:

- Monthly, annual, and average amount of the vendor checks processed.
- Monthly, annual, and average number of vendor checks processed.
- Monthly, annual, and average number of invoices processed.

Exhibit 1 is a summary of this statistical information.

Exhibit 1 **Summary Of Statistical Data Regarding Vendor Checks Processed From 1994-95 Through 1998-99**[1]

Dollar Amount Of Vendor Checks Issued

	1994-95	1995-96	1996-97	1997-98	1998-99
Annual Total	$251,784,047	$291,580,270	$447,967,810	$510,298,094	$397,669,375
Monthly Average	$20,982,004	$24,298,356	$37,330,651	$42,524,841	$33,139,115

Number Of Vendor Checks Issued

	1994-95	1995-96	1996-97	1997-98	1998-99
Annual Total	35,086	35,416	36,196	34,176	34,531
Monthly Average	2,924	2,951	3,016	2,848	2,878

Number Of Invoices Processed

	1994-95	1995-96	1996-97	1997-98	1998-99
Annual Total	83,199	85,398	99,208	108,355	110,549
Monthly Average	6,933	7,117	8,267	9,030	9,212

The statistics in Exhibit 1 demonstrate the City's potential exposure to errors and irregularities. Since the Master Vendor File is the source of the payee names and addresses printed onto checks, it is critical to the City's ability to process its disbursements correctly and properly.

---

[1] Exhibit 1 does not include statistics for the City's Redevelopment Agency.

When we reviewed the Master Vendor File for the period July 1, 1989, through October 31, 1999, we found that the City is exposed to fraud, misappropriation of assets, and errors because:

- There have been as many as 52 City and Redevelopment Agency employees with update and delete authorization access to the City's Master Vendor File. This is an excessive number when compared to other organizations and governmental jurisdictions;
- Of those 52 City and Redevelopment Agency employees, at least 29 were performing duties that are incompatible with their access to the City's Master Vendor File;
- The City has over 84,000 vendors or individuals in its Master Vendor file. This is an excessive number when compared to other organizations and governmental jurisdictions;
- The City needs to improve its controls to ensure the integrity and reliability of the information in its Master Vendor File; and
- The City has not implemented previously recommended access controls over its Master Vendor File.

There Have Been As Many As 52 City And Redevelopment Agency Employees With Update And Delete Authorization Access To The City's Master Vendor File. This Is An Excessive Number When Compared To Other Organizations And Governmental Jurisdictions

The types of access to the City's Accounts Payable System-Master Vendor File (Master Vendor File) are as follows:

Read access—refers to the ability to look at or view the data.

Update access—refers to the ability to change or modify existing data.

Delete access—refers to the ability to erase or remove data at the record or field level.

To authorize an employee to access the City's Master Vendor File, the City uses a Financial Management System (FMS) Users Set-Up Form. Appendix D shows the FMS Users Set-Up Form.

The respective Department Head and the Finance Department must approve the level of access on the FMS Users Set-Up Form. The City also requires the initials of an individual in IT designating the implementation of the approved level of access to the Master Vendor File.

We contacted IT and asked which individuals have update and delete access authorization to the Master Vendor File. Such authorization gives these individuals the capability to change information in the Master Vendor File through addition, deletion, replacement, or modification. These changes usually will have a sustained impact on future processing of the City's payments of non-personal expenditures.

The list IT provided to us showed 40 individuals with Master Vendor File maintenance access in the accounts payable system. In addition, prior to the Redevelopment Agency's conversion to the JD Edwards financial system in early 1999, the City's Redevelopment Agency had 12 individuals who could make changes to its respective data set of the Master Vendor File on the FMS. These 12 individuals still had maintenance access to the Master Vendor File until July 1, 1999. Thus, as recently as July 1, 1999, the City had 52 individuals who could add, delete, replace, or modify the vendors in the Master Vendor File.

Our review indicated that one of the 52 on the users list terminated her employment with the City on January 30, 1999 and another employee retired from City service on July 31, 1999. In addition, there were two temporary employees on the list. These four individuals still had Master Vendor File access as of October 19, 1999. In our opinion, the City should remove these four individuals immediately from the users list of the Master Vendor File.

Exhibit 2 is a schedule of the number of Master Vendor File users by City department that had Master Vendor File maintenance access authorization as of October 19, 1999.

Exhibit 2 Schedule Of The Number Of Master Vendor File Users By City Department

Department	Number
Finance-Accounting	22
Finance-Risk Management	2
Environmental Services-Management/Administration-Other	2
Environmental Services-South Bay Recycling	1
City Manager-Office of Community Relations	1
Information Technology	3
Public Works-Design & Construction Administration	1
Police-Fiscal Division	1
Fire	1
Office of Economic Development	2
Streets & Traffic-Administration & Support Services	1
Convention, Art, and Entertainment-Full time	1
General Services	2
Redevelopment Agency	12<1>
Total	**52**

<1> The Redevelopment Agency converted to its own financial system in early 1999. These 12 employees retained the ability to access the City's Master Vendor File until July 1, 1999.

Comparison With Other Jurisdictions

To establish a benchmark or standard with which to compare the number of individuals the City authorized to make changes to the Master Vendor File, we contacted several other governmental jurisdictions. We asked these jurisdictions how many individuals they had authorized to make changes to their master vendor files. Exhibit 3 summarizes the results of our survey.

Exhibit 3 Summary Of The Number Of Individuals Authorized To Make Changes To The Master Vendor File For San Jose And Other Selected Jurisdictions

Jurisdiction	Number Of Individuals
City of San Jose	**52**<1>
City and County of San Francisco	20
Kansas City	20
City of Phoenix	7
City of Las Vegas	6
County of Santa Clara	6
City of Seattle	3
City of Portland	2

<1> As a result of the Redevelopment Agency converting to its own financial system in early 1999, this number was reduced to 40 individuals who were authorized to make changes to the Master Vendor File as of July 1, 1999.

As Exhibit 3 shows, the number of individuals the City of San Jose has authorized to make changes to its Master Vendor File is considerably greater than the number of individuals the other jurisdictions we surveyed had authorized.

Types Of Security Controls

Access to assets can be direct or indirect. There are two basic controls that together provide security over information systems data and resources: (a) physical controls, such as locks or safes, which restrict individual direct physical access to information resources and (b) logical controls, which restrict indirect access to specific systems to authorized individuals and to the functions each individual can perform on the system. Indirect access control is accomplished by controlling the use of documents and records and by segregating the duties of those who must access and process these records.

James Hall in his book, *Information Systems Auditing and Assurance* states that

> *" . . . underlying all access control techniques is the fundamental principle of 'need to know.' Individuals should be granted access to data, programs, and restricted areas only when a need in connection with their assigned tasks has been demonstrated. This principle should never be violated."*

Need For Increased Security Controls For Master File Data

The Handbook of EDP Auditing states that data file security controls are controls designed to ensure that unauthorized changes cannot be made to data files. The need for data file security control is likely to be greater for master file data than for transaction data because not all significant master file data elements are subject to regular reconciliation procedures. Errors in master file data may affect many transactions or all transactions for a particular account. Furthermore, the error may not be detected by manual procedures, since master file data is not frequently printed out and checked.

Logical Access Risk And Access Controls

The Institute of Internal Auditors Research Foundation says in their Systems Auditability and Control (SAC) Report that the major risk associated with logical access is that the integrity of data may be compromised:

> *"Integrity may be compromised by allowing individuals or users access to application systems or functions outside their normal job responsibilities."*

The significance of master file data, especially the accounting and monetary values and indicators, is that programs use the data to generate transactions or to perform calculations within the system without any further human intervention or input. If the master file does not accurately reflect the actual situation, there is a risk that processing will yield incorrect results.

James Hall in his book, Information Systems Auditing and Assurance, says that because management does not observe automated authorization procedures, control failure may go unnoticed until the firm experiences some adverse symptoms. In addition, James Hall states that access control lies at the heart of accounting information integrity. In the absence of adequate controls, supplier invoices can be deleted, added, or falsified.

Limiting Access—An Effective Preventive Control

Keagle Davis states in his book, Auditing Computer Applications-A Basic Systematic Approach, that controls are designed to accomplish certain purposes: to prevent errors, to detect them if they escape preventive controls, and to ensure their correction once detected. Preventive controls are more efficient than detective controls because they prevent an error from occurring in the first place and thereby eliminate the costs of detection and correction.

William C. Mair, Donald R. Wood, and Keagle W. Davis in their book, Computer Control and Audit, state that an effective control approach is to limit access to the minimum number of individuals required to employ an organization's resources for constructive business objectives. This approach embodies using a variety of preventive controls such as: personnel screening, definition of duties, segregation of duties, physical access security, and electronic access security. Of the preventive controls, the most effective are those which prevent access.

Keagle Davis and William E. Perry say in their book, *Auditing Computer Applications-A Systematic Approach*, that one of the criteria in assessing the adequacy of internal control is accessibility. The authors emphasize that the accessibility of information and assets must be adequately controlled such that a person or persons could not modify information or remove assets without reasonable assurance of detection.

Potential Effect Of Having A Large Number Of Employees With Authority To Make Changes To The City's Master Vendor File

As mentioned above, as many as 52 individuals from various City departments, agencies, and offices were authorized to make changes to the City's Master Vendor File. In our opinion, having such a large number of employees with such authority exposes the City to fraud, misappropriation of assets, and errors.

Exposure To Fraud, Misappropriation Of Assets, And Errors

Because the City has a large number of employees with authority to make changes to its Master Vendor File, it is inherently difficult to assign accountability for the integrity and reliability of the information in the Master Vendor File.

A properly controlled accounting system will limit access to the master vendor files. In her book, *Accounts Payable—A Guide to Running an Efficient Department*, the author, Mary Ludwig, discusses the exposure an organization has as a result of a poorly controlled master vendor file:

> *"One of the most common types of employee fraud relates to an employee with access to the master file. The employee goes into the system and changes the "pay to" address of one or more vendors to whom large checks have been issued. These checks are automatically mailed to the new address. Once the checks have been mailed to this phony address to which the employee has access, the system is updated again and the address is changed back to the original. Thus, limiting the number of people with the ability to*

> *update and change the master file is vital. This is not the only way the vendor file can be manipulated for fraudulent purposes, but it gives you an idea of some of the shenanigans that can go on when proper controls are not put in place . . .*
>
> *The master vendor file is a treasure trove to the fraudster intent on separating your company from some of its money. Yet many firms do nothing to either guard this valuable asset or make sure that phantom vendors can't creep in without proper authorization. Access to the master vendor file is often where corporate fraud begins. The criminal simply adds a phony vendor or alters the information on an existing entry that is already included in the master file."*

Comments From Arthur Anderson & Company Regarding Fraud In The Accounts Payable Process

An Arthur Anderson & Company publication said the following:

> *"Organizations must know what can go wrong if they are to recognize or detect occurrences of fraud. The following are representative examples of occurrences of fraud that can occur in the accounts payable/purchasing process: (a) fictitious vendors could be established on the vendor master file, then unauthorized invoices, either self-prepared or obtained through collusion with suppliers, could be submitted and paid; and (b) an inactive vendor could be selected, the address changed, and unauthorized invoices submitted and paid."*

Thus, it is important to limit the ability to make changes to the Master Vendor File to as few individuals as possible to ensure accountability. The City should develop a policy specifying the criteria for authorizing access to the Master Vendor File and limit access to the Master Vendor File accordingly.

We recommend that the Finance Department and the Information Technology Department:

Recommendation #1

Develop a policy specifying the criteria for authorizing access to the Master Vendor File and limit access to the Master Vendor File to the fewest number of employees necessary.

Of These 52 City And Redevelopment Agency Employees, At Least 29 Are Performing Duties That Are Incompatible With Their Access To The City's Master Vendor File

Proper access controls should enforce an adequate segregation of duties for those employees with access to the Master Vendor File. However, as a result of the City authorizing 52 individuals to have Master Vendor File maintenance access, staff duties are also inadequately segregated.

Sound internal control requires that no one person has complete control over a transaction throughout its initiation, authorization, recording, processing, and reporting. A fundamental technique for safeguarding data is the appropriate segregation of duties and responsibilities of employees. Segregation of incompatible duties is fundamental to the reliability of the organization's internal controls.

The Institute of Internal Auditor's Research Foundation in its *SAC Report* observed that, since "in most disbursement systems, the master vendor file provides the necessary information related to where payment will be directed (e.g., payee, address, or electronic funds transfer account), the capability to update or add to this master vendor file should be restricted to authorized personnel **independent** of purchasing, disbursement, or receiving activities." [Emphasis added]

Using this SAC report criteria, we found that the duties of at least 29 of the 52 City employees who had authority to make changes to the City's Master Vendor File were performing incompatible duties. Specifically, in addition to having Master Vendor File maintenance access, these 29 employees were also performing disbursement, purchasing, or record keeping functions. These 29 employees had one or more of the following incompatible duties:

- Invoice processing and input data preparation;
- Account reconciliation;
- Transaction authorization;
- Disbursement preparation or approval;
- Purchasing; and
- General Ledger functions.

In our opinion, the City does not have adequate segregation of duties in effect for the accounts payable system. Suitable segregation of duties should be established and maintained for data file security controls. This protects against users circumventing existing controls and making changes in Master Vendor File or transaction data without independent review and/or approval.

We recommend that the Finance Department and the Information Technology Department:

Recommendation #2

Establish a policy addressing incompatible duties with regard to Master Vendor File maintenance and implement Master Vendor File access controls to effectuate that policy.

The City Has Over 84,000 Vendors Or Individuals On Its Master Vendor File. This Is An Excessive Number When Compared To Other Organizations And Governmental Jurisdictions

With the help of an independent computer-audit consultant, we reviewed the accounts payable computer records and files for the period of July 1, 1989 through October 31, 1999. We found that the City had 84,784 vendors in its Master Vendor File as of October 31, 1999.

The City's Master Vendor File included records for the following:

- Vendors providing goods and services for the City. Some of the vendors were on the Master Vendor File more than once;
- Vendors providing goods and services for the City's Redevelopment Agency. Some of the vendors were on the Master Vendor File more than once;
- Active City employees, some of whom are listed in the Master Vendor File two or more times;
- City retirees, some of whom are listed in the Master Vendor File two or more times. We also found some deceased retirees still listed in the Master Vendor File;
- Entities or individuals receiving refunds for business taxes, parking tickets, badge payments, fuel tax payments, and building permit payments; and
- Former City employees now working for other organizations.

For the period of July 1, 1998 to October 31, 1999, the City's Accounts Payable Section paid $579,108,851 to 12,270 vendors. Thus, the City actually used only about 14.5 percent of the 84,784 vendors in the City's Master Vendor File during this sixteen-month period. In 1987, when the City Auditor last audited the Master Vendor File, there were about 24,000 vendors in the Master Vendor File.

Analysis Of The Vendors In The Master Vendor File Based On The Last Activity Date

From our observation of the processing of accounts payable transactions as well as discussions with a City employee responsible for processing accounts payable, we found that the last activity date shown in the Master Vendor File represents the last date the City had a transaction with a vendor or individual. Exhibit 4 summarizes the number of months since the City had a transaction with the vendors and individuals in the Master Vendor File.

Exhibit 4 **Summary Of The Number Of Months Since The City Has Had A Transaction With The Vendors And Individuals In The City's Master Vendor File**

Number Of Months Since Last Transaction*	Number Of Vendors	Percent Of Total	Cumulative Percent Of Total
Less than 12	9,814	11.58%	11.58%
12 to 23	6,263	7.39	18.97
24 to 35	5,436	6.41	25.38
36 to 47	6,029	7.11	32.49
48 to 59	5,684	6.70	39.19
60 to 71	4,442	5.24	44.43
72 to 83	4,244	5.01	49.44
84 to 95	6,443	7.60	57.04
96 to 107	7,703	9.09	66.13
108 to 120	7,040	8.30	74.43
Over 120	3,582	4.22	78.65
No Activity since July 1989	18,104	21.35%	100.00%
Total	**84,784**	**100.00%**	

* Prior To October 31, 1999

As Exhibit 4 shows, as of October 31, 1999, the City had no transactions for at least four years with 57,242 (68 percent) of the 84,784 vendors and individuals in the Master Vendor File. Further, as of October 31, 1999, the City had no transactions for over 10 years with 18,104 (21 percent) of the 84,784 vendors and individuals in the Master Vendor File.

Surveys Regarding The Size Of The Master Vendor File

To establish a benchmark or standard to evaluate the size of the City's Master Vendor File we did the following:

- Compared the number of vendors in the City's Master Vendor File to the results of a 1997 survey that the Institute of Management and Administration (IOMA) conducted and
- Surveyed other governmental jurisdictions regarding the size of their master vendor files.

IOMA Survey

In 1997, IOMA conducted a benchmarking survey on master vendor files. In its survey the IOMA asked how many vendors are in your vendor master file. IOMA also analyzed the results of this survey by evaluating the size of the master vendor file by company size. Exhibits 5 and 6 summarize IOMA's survey results.

Exhibit 5 **Summary Of Responses To IOMA's Survey Question – "How Many Vendors Are In Your Vendor File?"**

Number Of Vendors In The Master Vendor Files	Percent Of Companies	Cumulative Percent Of Companies
Under 1,000	12.4%	12.4%
1,000 to 5,000	41.3	53.7
5,001 to 20,000	30.9	84.6
20,001 to 50,000	10.3	94.9
50,001 to 100,000	2.7	97.6
Over 100,000	2.4	100.0

Exhibit 6 **Summary Of Responses To IOMA's Survey Question – "What Is The Size Of Your Master Vendor File?"**

Respondent Number Of Employees	Average Number Of Vendors In The Master Vendor Files
0 to 99	2,338
100 to 249	3,553
250 to 499	5,781
500 to 999	7,017
1,000 to 4,999	14,520
Over 5,000	28,199

As the above exhibits show, about 85 percent of the companies had 20,000 or fewer vendors in their master vendor file. Likewise, for companies with over 5,000 employees, the average number of vendors in the master vendor files was 28,199. In comparison, the City of San Jose, with a total staffing of about 6,600, had 84,784 vendors in its Master Vendor File as of October 31, 1999.

City Auditor's Survey Of Governmental Jurisdictions

We also conducted our own survey of governmental jurisdictions regarding the number of vendors in master vendor files. Exhibit 7 shows the results of our survey.

Exhibit 7 **City Auditor's Survey Showing The Number Of Vendors In The Master Vendor File For Various Governmental Jurisdictions**

Jurisdiction	Approximate Number Of Vendors In Master Vendor File
City and County of San Francisco	250,000
City of San Jose	**84,800**
City of Seattle	48,850
City of Las Vegas	45,000
City of Phoenix	39,000
County of Santa Clara	35,250
City of Portland	16,500
Kansas City	14,000

As shown in Exhibit 7, the City of San Jose's Master Vendor File contains the second largest number of vendors in its Master Vendor File among the jurisdictions we surveyed.

The City Does Not Have A Purge Policy For The City's Master Vendor File

Despite the large number of inactive vendors in its Master Vendor File, the City of San Jose does not conduct periodic maintenance and control of its vendor list. As a result of this failure to "purge" the Master Vendor File, inaccurate or outdated information has been allowed to remain in the file. This is evident in the Master Vendor File coding structure shown in Appendix C.

For example, the City's failure to purge its Master Vendor File has led to confusion and inconsistency in the use of the largest block of vendor numbers in the Master Vendor File. This vendor number series (70000 through 79999) was originally reserved for refund payments only. However, we identified that the City has used this 70000 through 79999 series not only for refunds but also for standard invoice payments for goods and services. In our opinion, the City, like other organizations, should have effective preventive and detective controls in place to monitor cash refunds. Further, when the City commingles vendor refunds with standard invoice payments in the same vendor number series, it is difficult for the City staff to identify the number and amount of the refunds for a specific period of time and then evaluate the propriety of these refunds.

We also found that the City used the 70000-79999 series so much that it ran out of numbers in this series. As a result, the City had to create new vendor numbers by using a letter of the alphabet after the first four digits, such as 7405J. Consequently, the number of vendor numbers in the 70000 through 79999 series grew to 19,291 as of October 31, 1999 and constituted about 23 percent of all the vendor numbers in the Master Vendor File. For the period of July 1, 1998 through October 31, 1999, the City paid 1,519 invoices totaling $19,581,085 in this "vendor refund" series. Exhibit 8 provides a stratification of the invoices paid in the 70000 through 79999 series in the Master Vendor File from July 1, 1998 through October 31, 1999.

Exhibit 8 Stratification Of The Invoices Paid In The 70000 Through 79999 Series In The Master Vendor File July 1, 1998 Through October 31, 1999

Range	Invoice Count	% of Count	Total Payments	% of Invoice Amount
Less than $0.00	7	0.46	($12,898)	(0.07)
$0.00 to $499.99	822	54.11	$138,003	0.70
$500 to $999.99	120	7.90	$88,961	0.45
$1,000 to $4,999.99	237	15.60	$535,624	2.74
$5,000 to $9,999.99	95	6.25	$666,911	3.41
$10,000 to $19,999.99	80	5.27	$1,011,627	5.17
$20,000 to $29,999.99	33	2.17	$776,116	3.96
$30,000 to $49,999.99	46	3.03	$1,740,481	8.89
$50,000 to $74,999.99	18	1.18	$1,066,307	5.45
$75,000 to $99,999.99	8	0.53	$718,366	3.67
$100,000 to $199,999.99	34	2.24	$4,619,272	23.59
$200,000 to $299,999.99	6	0.39	$1,460,127	7.46
$300,000 to $399,999.99	2	0.14	$697,221	3.56
$400,000 to $500,000.00	2	0.14	$967,115	4.94
Over $500,000	9	0.59	$5,107,852	26.08
Totals	**1,519**	**100.00**	**$19,581,085**	**100.00**

As Exhibit 8 shows, while most of the payments made were for less than $5,000, the bulk of the dollar values were in the range of $100,000 or more. This brings up questions regarding the propriety of such large payments in the vendor refund number series. We intend to address the propriety of cash refunds in a future audit of accounts payable.

Other Areas Where Vendor File Maintenance Is Needed

Other areas where vendor file maintenance is needed are the following:

- Vendor numbers beginning with "R" were assigned to vendors of the Redevelopment Agency. The City's Redevelopment Agency (RDA) no longer uses FMS to process accounts payable since RDA installed the JD Edwards financial software package early in 1999. However, there were still 4,622 "R" vendors in the Master Vendor File as of October 31, 1999. Because RDA no longer uses these vendors, the City should remove the "R" vendor numbers from the active Master Vendor File.

- We found the names of 35 deceased individuals in the Master Vendor File. We also found retirees and former employees. The City should remove these individuals' names from the active Master Vendor File.
- The City erroneously assigned vendor numbers beginning with "A", "F", "O", and lower-case "p". The City should remove these numbers from the Master Vendor File.

1997 Survey Regarding Timing Of Vendor File Clean-Up

According to Mary S. Ludwig, the author of the book, Accounts Payable-A Guide to Running an Efficient Department,

> *"Proper maintenance and control over a company's master vendor file will greatly decrease the chances for duplicate and erroneous payments and fraud. Yet, many companies do not give adequate thought or attention to this issue. Not only are the controls often weak, but the files are not purged nearly as often as they should be—in fact, some companies never purge them."*

Exhibit 9 shows IOMA's 1997 Benchmarking Survey of the timing of the vendor file clean-up.

Exhibit 9 Timing Of Master Vendor File Clean-Ups

Frequency	Percentage	Cumulative Percentage
Monthly	4.7%	4.7%
Quarterly	3.3	8.0
Yearly	40.5	48.5
Every two years	13.7	62.2
Every three years	12.0	74.2
Other	1.5	75.7
Never	24.3	100.0

As Exhibit 9 shows, about 48 percent of the firms the IOMA surveyed said they purged their master vendor files at least annually, and 74 percent purge at least every three years. However, only 24 percent of the respondents indicated they, like the City of San Jose, never purged their master vendor files.

Santa Clara County’s Clean-Up Of Its Master Vendor File

Unlike the City of San Jose, the County of Santa Clara has a policy of purging its master vendor file. According to the County’s policy, “Permanent vendor numbers that do not have any activity (no payment voucher processed) within a period of two years are purged from the system.” The last purge was completed in September 1998.

As a further control to limit the number of vendors in the master file, Santa Clara County uses a vendor numbering system to expedite one time or infrequent payment for authorized purchases and to facilitate automatic purging of these vendors from its master vendor file. Further, the City’s FMS has the same one-time purchase and automatic purging capabilities, but the City has not implemented those features. In our opinion, such a practice would benefit the City.

Consequences Of Inadequate Maintenance Policies For The Master Vendor File

In her book, *Accounts Payable-A Guide to Running an Efficient Department*, Mary Ludwig discusses the consequences of inadequate maintenance of the master vendor file:

> *Many professionals know their files should be purged more frequently, but say they just don’t have the time. This is unfortunate, because lax policies ultimately cost companies money. When both IBM and International Business Machines are paid for the same invoice, your company loses out---even if the funds are eventually recovered. Even more troublesome is the fact that a clever, but dishonest employee could present an invoice from a long inactive vendor and possibly get it paid.*

In the opinion of the author, organizations that do not purge their vendor files are also wasting computer storage space. According to the authors, Mary Ludwig and Rao Vallabhaneni, an efficient and economical system uses the minimum number of information resources to achieve the output level the system users require. Even though this may not be an issue at every organization, organizations are geometrically increasing their chances of making a duplicate payment, or worse, processing a fraudulent invoice. While tighter controls on the master vendor file will not eliminate these issues, it will decrease the likelihood of their occurring.

The City Asserts That The City's Financial System Has Limitations On Capabilities

The City's Finance and IT Departments assert that:

> *While FMS was primarily designed as an accounting system, San Jose City implemented the system to fulfill a financial management role as well. With this dual purpose of financial management complementing our basic accounting functions, the system is run differently than in providing only for accounting needs and purposes. Accurate financial management requires that all data sets remain in complete form for FMS to fulfill this purpose. In particular, project management for multi-year, multi-phase projects would be compromised if subsets of data were purged from the system. Some of the fields in the Accounts Payable module are too small or are not designed to accommodate the desired level of flexibility and controls. Structural changes to FMS cannot be made by in-house staff and require contractual programming from SFG Technologies (formerly Nissi).*
>
> *The Finance and Information Technology Departments are in the process of exploring alternatives that may now be available given the advances that have been made in data management systems since FMS first became operational at the City in fiscal year 1989-90.*

In our opinion, the City of San Jose should establish a policy for identifying, researching, and purging inactive vendor accounts; develop written procedures regarding this "purge" policy; and conduct the purging of the Master Vendor File and the corresponding records in other modules in accordance with the written procedures. In addition, the City should archive the records taken off the Master Vendor File and the corresponding records in other modules to another medium such as CD-ROM. Finally, the City should develop procedures on using a single temporary or miscellaneous vendor number for one-time payment of authorized purchases.

We recommend that the Finance and Information Technology Departments:

Recommendation #3

Prepare a proposal and budget requirements to allow for 1) identifying, researching, and purging inactive vendor numbers; "R" vendor numbers; deceased, retired, and former employee numbers; and erroneously assigned vendor numbers from the Master Vendor File and the corresponding records in other modules; 2) Archiving the records taken off the Master Vendor File and the corresponding records; and 3) Using a vendor numbering system for one-time payment of authorized purchases and automatic purging of such vendor numbers.

The City Needs To Improve Its Controls To Ensure The Integrity And Reliability Of The Information In Its Master Vendor File

In order to establish the identity of a vendor, a vendor record will usually contain the following information:

- Vendor code or vendor identification;
- Vendor name;
- Vendor address;
- Vendor telephone number;
- Vendor contact;
- Vendor terms, e.g. discount percentage by dollar volume or quantity, shipping terms;
- Vendor purchases history; and
- Vendor background information.

Setting Up The Master Vendor File

A vendor or supplier's master record is the central reference that the accounts payable system uses to manage a vendor's activity. It is a central storage place for all vendor information. A master vendor record must be created before anyone can enter a voucher and issue payments.

Mary Ludwig, in her book, *Accounts Payable—A Guide to Running an Efficient Department*, says the following about setting up the master vendor file:

> *"Setting up vendor files so they reflect all pertinent information and are tamperproof as well is not easy. Yet it is a task that is given little thought or attention at most companies which can lead to reduced worker productivity, duplicate payments, and in the worst case, fraud . . . For starters, the file should contain the correct legal name. While this may sound quite*

> *obvious, it is often overlooked. If you think I'm wrong, check how many versions of IBM are in your vendor file. If you are like a good portion of corporate America, you'll have an IBM, and I B M, an I.B.M., an International Business Machines, and an International Business Machine Company."*

Mary Ludwig recommends that an organization's master vendor file include the address, phone number, and primary contact. Some accounts payable professionals also like to include the company's 800-phone number if it has one. Then when it is necessary to call a vendor, the vendor pays for the call. The file should also contain the standard payment terms for the vendor. Ideally, this should be written and signed. The file should also contain the Federal Tax Identification Number or the Social Security Number of the party. All 1099 forms for independent contractors should be included.

Certain Critical Vendor Information Was Missing In A Significant Number Of The City's Vendor Records

When we reviewed the City's Master Vendor File, we found that certain critical vendor information was missing from a significant number of vendor records:

No Telephone Numbers

- Of the 12,270 vendors paid during the period of July 1, 1998 through October 31, 1999, about 73 percent, or 8,985 did not have a telephone number for the vendor in the Master Vendor File.

- For the 84,784 vendors in the Master Vendor File, 74,617 or about 88 percent did not have a telephone number for the vendor in the Master Vendor File.

No Vendor Contact Names

- For the 12,270 vendors that the City paid invoices during the period of July 1, 1998 through October 31, 1999, about 94 percent, or 11,590 had no vendor contact name in the Master Vendor File.
- For the 84,784 vendors in the Master Vendor File, 82,786 or about 98 percent had no vendor contact name in the Master Vendor File.

No Vendor Contact And No Telephone Number In The Master Vendor File

- For the 12,270 vendors that the City paid invoices during the period of July 1, 1998 through October 31, 1999, about 72 percent, or 8,879 had no vendor contact and no telephone number in the Master Vendor File.
- Of the 84,784 vendors in the Master Vendor File, 74,372 or about 88 percent had no vendor contact and no telephone number in the Master Vendor File.

No Vendor Discount Terms

For the 84,784 vendors in the Master Vendor File, 83,611 or 99 percent did not have vendor discount terms indicated in the vendor discount field in the Master Vendor File. For the 12,270 vendors paid during the period of July 1, 1998 through October 31, 1999, about 97 percent or 11,916 had no vendor discount terms shown in the Master Vendor File. Personnel in the City's Purchasing Division told us that the City establishes vendor discount terms on a purchase order basis. In other words, vendor discount terms may appear on one purchase order for a vendor and then not appear on the next ten purchase orders for the same vendor. Thus, it appears that vendor discount terms are not integrated where appropriate into the City's competitive bidding or request for quotation processes.[2]

A Post Office Box Mailing Address In A Vendor Master File Is A Red Flag

To ensure that fictitious vendor names are excluded from the Master Vendor File, it is important that a vendor record contain complete business address and contact information, and not just a P.O. Box address. In his book, *Information Systems Auditing and Assurance*, the author James Hall suggests that while it is also possible for a legitimate vendor to use a P. O. Box, vendor records that show only a P.O. Box address are candidates for further review. Thus, while a P.O. Box may be a legitimate address for a vendor, it should also alert an organization to the possibility of a phantom record.

About 22 Percent Of The Vendors In The City's Master Vendor File Show A P. O. Box Mailing Address

During our review of the City's Master Vendor File, we found a significant number of vendor records that contained a P.O. Box mailing address, but no vendor contact or telephone number. Specifically, of the 84,784 vendors in the Master Vendor File, 15,763 or about 19 percent had only a P.O. Box mailing address. Further, of the 12,270 vendors the City actually paid during the period of July 1, 1998 through October 31, 1999, about 13 percent, or 1,542 had only a P.O. Box mailing address.

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[2] We intend to include this issue as well as cash discounts not taken in the scope of subsequent reviews of accounts payable.

Of the 84,784 vendors in the City's Master Vendor File, 18,330, or about 22 percent, had a P.O. Box mailing address. Of the 12,270 vendors the City paid during the period of July 1, 1998 through October 31, 1999, about 20 percent, or 2,414, had a P.O. Box mailing address.

In our opinion, payments to vendors with a P.O. Box mailing address should be carefully scrutinized. More importantly, a physical address should be part of the mandatory information in each vendor file.

We recommend that the Finance Department:

Recommendation #4

Establish policies and procedures defining the required fields of information in the Master Vendor File.

The City No Longer Requires A Vendor Maintenance Form

The Finance-Accounting Procedures Manual requires that a Vendor Maintenance Form be used to provide documentation for the creation of each vendor number. However, according to the Finance-Accounting staff, the Finance Department no longer requires a Vendor Maintenance Form despite the Finance-Accounting Procedures Manual requirement to do so.

The City's current practices for vendor maintenance set-up and vendor maintenance modifications are as follows:

Vendor Maintenance (Set-up)

- Purchases and Services (permanent and one-time)
    - Copy of contract or invoice
    - W-9
- Refunds
    - Copy of cash receipt
- Reimbursement to Employees
    - Copy of receipt or invoice
    - Social Security Number

Vendor Maintenance (Modifications)

- Name Changes
    - Letter from vendor
    - W-9
- Address Change
    - Letter from vendor

In our opinion, the City needs written policies and procedures establishing the required documentation for all additions or changes to the Master Vendor File.

Data And System Ownership

A data system owner is responsible for the integrity of the data and system. Managers of two or more departments may share data ownership.

The City of San Jose’s 1999-2000 Adopted Operating Budget states that the mission of the City’s Finance Department is:

> *“To provide the public, City Council and City Administration with reliable information on the City’s financial condition; to establish systems, policies, procedures and guidelines for departmental and City-wide fiscal operations; to maintain and operate critical financial systems for . . . payment of the City’s debt . . .”*

The City of San Jose’s 1999-2000 Adopted Operating Budget states that the mission of IT is:

> *“To provide accurate and timely computer data and communications services to City staff. To assist in managing technology resources for the efficient and effective delivery of City services.”*

Thus, both the Finance Department and IT are jointly responsible for the integrity and reliability of the data in the disbursement process.

We recommend that the Finance Department:

Recommendation #5

Amend the Finance-Accounting Procedures Manual to: 1) Eliminate the Vendor Maintenance Form requirement and 2) Establish the documentation requirements to support any additions, deletions, and changes to the Master Vendor File for each type of vendor.

The City Has Not Implemented Previously Recommended Access Controls Over Its Master Vendor File

In 1987, the City Auditor issued a report titled *A Controls Review of the City's Checkwriter System*. In the report, the City Auditor pointed out that the Master Vendor File, not the payment authorization documents, was the source of the payee names and addresses printed onto checks. In addition, the City Auditor reported that the City had no controls over the Master Vendor File beyond the access restriction by password. The Master Vendor File system produced a report listing the changes, but the clerks who made the changes were the only ones who reviewed it. The changes in the number of Master Vendor File records were not reviewed nor was the total number of records (which were then around 24,000) tracked. As a result, there was no management or monitoring of the Master Vendor File which determined the payee name and mailing address printed onto the check. The City Auditor discussed Master Vendor File control techniques that Accounts Payable could implement, including:

- Management review and approval of reports showing Master Vendor File records before and after changes and
- Periodic balancing and reconciliation of the total number of Master Vendor records in the files by a person who has no responsibilities for initiating or processing changes to those files.

As a result of the 1987 audit, the City Auditor recommended that the Accounts Payable section establish an appropriate scheme of control over the Master Vendor File beyond the current access restriction by password.

The City Administration responded that the Senior Accountant who supervised Accounts Payable would review and approve the reports showing Master Vendor File records before and after changes, and a person who had no responsibilities for initiating or processing changes to those files would reconcile the total number of Master Vendor File records.

When we inquired about this control, the City's System and Programming Supervisor told us that the City did not activate its Master Vendor File report log on the FMS until May 1999. Thus, the City currently does not produce an edit report showing the changes, additions, and deletions to the information on the Master Vendor File. As a consequence of the lack of edit reports and reviews, the individuals with Master

Vendor File maintenance authorization could make alterations on the Master Vendor File without an audit trail and without supervisory review.

We recommend that the Information Technology Department:

Recommendation #6

Design and implement a report detailing all the additions, deletions, and changes made to the Master Vendor File, including the identity of the person making the changes.

We also recommend that the Finance Department:

Recommendation #7

Require a senior level manager to periodically review and approve all additions, deletions, and changes to the Master Vendor File.

CONCLUSION

We reviewed the City's Master Vendor File to determine (a) whether the City has adequate controls and is demonstrating effective accountability over its Master Vendor File to prevent fraud, misappropriation of assets, and errors and (b) whether there are methods for improving the integrity and reliability of the information in the Master Vendor File. We found that:

- An excessive number of individuals have update and delete authorization access to the City's Master Vendor File;
- The City needs to improve its controls to ensure the integrity and reliability of the information in its Master Vendor File;
- The City needs to establish a policy for purging inactive vendor accounts in its Master Vendor File; and
- The City has not implemented previously recommended access controls over its Master Vendor File.

As a result, the City does not have adequate controls over its Master Vendor File. The Finance Department and IT can improve the controls over the Master Vendor File by developing policies and procedures for authorizing access to the Master Vendor File, requiring the completion of mandatory information in the Master Vendor File, purging inactive vendor numbers and certain other non-vendor numbers, and reviewing all additions, deletions, and changes to the Master Vendor File.

RECOMMENDATIONS

We recommend that the Finance Department and the Information Technology Department:

Recommendation #1 **Develop a policy specifying the criteria for authorizing access to the Master Vendor File and limit access to the Master Vendor File to the fewest number of employees necessary. (Priority 2)**

Recommendation #2 **Establish a policy addressing incompatible duties with regard to Master Vendor File maintenance and implement Master Vendor File access controls to effectuate that policy. (Priority 2)**

Recommendation #3 **Prepare a proposal and budget requirements to allow for 1) identifying, researching, and purging inactive vendor numbers; "R" vendor numbers; deceased, retired, and former employee numbers; and erroneously assigned vendor numbers from the Master Vendor File and the corresponding records in other modules; 2) Archiving the records taken off the Master Vendor File and the corresponding records; and 3) Using a vendor numbering system for one-time payment of authorized purchases and automatic purging of such vendor numbers. (Priority 3)**

We recommend that the Finance Department:

Recommendation #4 **Establish policies and procedures defining the required fields of information in the Master Vendor File. (Priority 3)**

Recommendation #5 **Amend the Finance-Accounting Procedures Manual to: 1) Eliminate the Vendor Maintenance Form requirement and 2) Establish the documentation requirements to support any additions, deletions, and changes to the Master Vendor File for each type of vendor. (Priority 3)**

We recommend that the Information Technology Department:

Recommendation #6 **Design and implement a report detailing all the additions, deletions, and changes made to the Master Vendor File, including the identity of the person making the changes. (Priority 3)**

We also recommend that the Finance Department:

Recommendation #7 **Require a senior level manager to periodically review and approve all additions, deletions, and changes to the Master Vendor File. (Priority 3)**